What Is Claimed Is:

1. A thermal bus junction arranged within an electronics system for transporting thermal energy in a directed manner from one location to another location comprising:

a cold plate having a portion of at least one heat pipe embedded within a first thermal interface surface; and

an evaporator portion of a loop thermosyphon having a second thermal interface surface releasably pressed against said first thermal interface surface.

2. A thermal management system for an electronic device having one or more circuit cards arranged within an enclosure, said thermal management system comprising:

a first thermal energy transfer assembly that is thermally coupled between a heat generating structure located on a circuit card and a first thermal interface surface that is spaced away from said heat generating structure;

a second thermal energy transfer assembly having a second thermal interface surface arranged in confronting relation to said first thermal interface surface; and

a clamping mechanism arranged to move said second thermal interface surface between (i) a first position that is spaced away from said first thermal interface surface, and (ii) a second position wherein said second thermal interface surface is pressed against said first thermal interface surface so as to allow the

busing of thermal energy from said first thermal energy transfer assembly to said second thermal energy transfer assembly by heat transfer from said first thermal interface surface to said second thermal interface surface.

3. A thermal management system according to claim 2 wherein said thermal energy transfer assembly comprises a card level cooling assembly including at least one thermal saddle heat sink and a cold plate that defines said first thermal interface surface, said at least one thermal saddle heat sink and said cold plate being coupled together in thermal transfer communication with one another through a heat pipe.

4. A thermal management system according to claim 3 wherein of said thermal saddle is positioned atop an active, heat generating electronic component, so as to conductively receive operating heat, and includes a recessed slot defined in a top surface so as to receive a portion of said heat pipe.

5. A thermal management system according to claim 3 wherein said heat pipe includes at least one thermally conductive flag projecting outwardly from a portion thereof so as to provide a thermally conductive path to said heat pipe.

6. A thermal management system according to claim 5 wherein said flag comprises a heat pipe.

7. A thermal management system according to claim 3 wherein said cold plate comprises at least one channel defined in said first thermal interface surface.

8. A thermal management system according to claim 7 wherein a portion of said heat pipe is thermally engaged with said at least one channel.

9. A thermal management system according to claim 3 wherein said cold plate comprises a width of about one and three-quarter inches.

10. A thermal management system according to claim 8 wherein said channels have a substantially semi-circular bottom portion that is sized and shaped to tightly receive a partially flattened portion of said heat pipe.

11. A thermal management system according to claim 2 wherein said second thermal energy transfer assembly includes a rack-level cooling assembly comprising a plurality of modular loop thermosyphons that each include an evaporator and a condenser that are arranged in fluid communication with one another through a vapor conduit and a condensate conduit, wherein said second thermal interface surface is defined by a surface of said evaporator.

12. A thermal management system according to claim 11 wherein said second thermal interface surface comprises a width of about one and three-quarter inches.

13. A thermal management system according to claim 11 wherein said second thermal interface surface is sized and shaped so as to be complementary to at least said first thermal interface surface.

14. A thermal management system according to claim 11 wherein said vapor conduit and said condensate conduit have flexible sections.

15. A thermal management system according to claim 11 wherein said condenser comprises a vapor vessel and a liquid vessel that are arranged in fluid communication with one another through a plurality of conduits, with a plurality of fins positioned between said plurality of conduits.

16. A thermal management system according to claim 11 wherein said evaporator is located adjacent to said first thermal interface surface, and said condenser is spaced away from both said evaporator and said first thermal interface surface.

17. A thermal management system according to claim 16 wherein said condenser is spaced away from both said evaporator and said first thermal interface surface by more than one hundred centimeters.

18. A thermal management system according to claim 2 wherein said second thermal energy transfer assembly includes a rack-level cooling assembly comprising a loop thermosyphon that includes a condenser and a plurality of blade-evaporators that extend from a common manifold that is arranged in fluid communication with each blade-evaporator, said common manifold being arranged in fluid communication with a vapor conduit and a condensate conduit, wherein said second thermal interface surface is defined by a surface of each of said plurality of blade-evaporators.

19. A thermal management system according to claim 18 wherein said plurality of blade-evaporators are arranged in substantially perpendicular relation to said common manifold.

20. A thermal management system according to claim 18 wherein each blade-evaporator is joined to said common manifold so that vapor exits from each blade-evaporator to said common manifold and condensate is returned to said common manifold so as to be distributed to individual blade-evaporators.

21. A thermal management system according to claim 19 wherein a single vapor line and a single condensate line extend between said common manifold and a heat exchanger.

22. A thermal management system according to claim 21 wherein said single vapor line and said single condensate line comprise flexible sections.

23. A thermal management system according to claim 18 wherein each individual blade-evaporator is joined to said common header manifold by a flexible joint.

24. A thermal bus junction arranged within an electronics system for transporting thermal energy in a directed manner from one location to another location comprising:

a condenser of a first loop thermosyphon having a first thermal interface surface; and

an evaporator portion of a second loop thermosyphon having a second thermal interface surface releasably pressed against said first thermal interface surface.

25. A thermal management system for an electronic device having one or more circuit cards arranged within an enclosure, said thermal management system comprising:

at least one card-level cooling assembly including at least one thermal saddle arranged in thermal engagement with a heat generating structure, a cold plate having a first thermal interface surface, and a heat pipe thermally coupled to said at least one thermal saddle and said cold plate;

at least one heat exchanger having a second thermal interface surface arranged in confronting relation to said first thermal interface surface; and

a clamping mechanism arranged to move said second thermal interface surface between (i) a first position that is spaced away from said first thermal interface surface, and (ii) a second position wherein said second thermal interface surface is pressed against said first thermal interface surface so as to allow the busing of thermal energy from said at least one card-level cooling assembly to said at least one heat exchanger by heat transfer from said first thermal interface surface to said second thermal interface surface.

26. A thermal management system according to claim 25 wherein a second one loop thermosyphon having a third thermal interface surface disposed upon a condenser is arranged adjacent to said at least one card-level cooling assembly and in confronting relation to said second thermal interface surface.

27. A thermal bus junction arranged within an electronics system for transporting thermal energy in a directed manner from one location to another location comprising:

a cold plate having a portion of at least one heat pipe embedded within a first thermal interface surface

a condenser of a first loop thermosyphon having a second thermal interface surface; and

an evaporator portion of a second loop thermosyphon having a third thermal interface surface releasably pressed against said first and second thermal interface surfaces.

28. A thermal management system for an electronic device having one or more circuit cards arranged within an enclosure, said thermal management system comprising:

at least one card-level cooling assembly including at least one thermal saddle arranged in thermal engagement with a heat generating structure, a cold plate having a first thermal interface surface, and a heat pipe thermally coupled to said at least one thermal saddle and said cold plate;

at least one loop thermosyphon having a second thermal interface surface disposed upon a evaporator and arranged in confronting relation to said first thermal interface surface; and

a clamping mechanism arranged to move said second thermal interface surface between (i) a first position that is spaced away from said first thermal interface surface, and (ii) a second position wherein said second thermal interface surface is pressed against said first thermal interface surface so as to allow the busing of thermal energy from said at least one card-level cooling assembly to said at least one loop thermosyphon by heat transfer from said first thermal interface surface to said second thermal interface surface.

29. A thermal management system for an electronic device having one or more circuit cards arranged within an enclosure, said thermal management system comprising:

at least one card-level cooling assembly including at least one loop thermosyphon having a first thermal interface surface disposed upon a condenser;

at least a second loop thermosyphon having a second thermal interface surface disposed upon a second evaporator and arranged in confronting relation to said first thermal interface surface; and

a clamping mechanism arranged to move said second thermal interface surface between (i) a first position that is spaced away from said first thermal interface surface, and (ii) a second position wherein said second thermal interface surface is pressed against said first thermal interface surface so as to allow the busing of thermal energy from said at least one card-level cooling assembly to said

at least a second loop thermosyphon by heat transfer from said first thermal interface surface to said second thermal interface surface.

30. A thermal management system for an electronic device having one or more circuit cards arranged within an enclosure, said thermal management system comprising:

a first thermal energy transfer assembly that is thermally coupled between a heat generating structure located on a circuit card and a first thermal interface surface that is spaced away from said heat generating structure;

a second thermal energy transfer assembly that is thermally coupled between a heat generating structure located on a circuit card and a second thermal interface surface that is spaced away from said heat generating structure;

a third thermal energy transfer assembly having a third thermal interface surface arranged in confronting relation to said first and second thermal interface surfaces; and

a clamping mechanism arranged to move said third thermal interface surface between (i) a first position that is spaced away from said first and second thermal interface surfaces, and (ii) a second position wherein said third thermal interface surface is pressed against said first and second thermal interface surfaces so as to allow the busing of thermal energy from said first and second thermal energy transfer assemblies to said third thermal energy transfer assembly by heat transfer

from said first and second thermal interface surfaces to said third thermal interface surface.

31. A thermal management system for an electronic device having one or more circuit cards arranged within an enclosure, said thermal management system comprising:

a first thermal energy transfer assembly that is thermally coupled between a heat generating structure located on a circuit card and a first thermal interface surface that is spaced away from said heat generating structure, and has an exposed height of about one and three-quarter inches;

a second thermal energy transfer assembly that is thermally coupled between a heat generating structure located on a circuit card and a second thermal interface surface that is spaced away from said heat generating structure and has an exposed height of about one and three-quarter inches;;

a third thermal energy transfer assembly having a third thermal interface surface arranged in confronting relation to said first and second thermal interface surfaces, and has an exposed height of about one and three-quarter inches; and

a clamping mechanism arranged to move said third thermal interface surface between (i) a first position that is spaced away from said first and second thermal interface surfaces, and (ii) a second position wherein said third thermal interface surface is pressed against said first and second thermal interface surfaces so as to allow the busing of thermal energy from said first and second thermal energy

transfer assemblies to said third thermal energy transfer assembly by heat transfer from said first and second thermal interface surfaces to said third thermal interface surface.

32. A thermal management system according to claim 31 wherein said thermal energy transfer assembly comprises a card level cooling assembly including at least one thermal saddle heat sink and a cold plate that defines said first thermal interface surface, said at least one thermal saddle heat sink and said cold plate being coupled together in thermal transfer communication with one another through a heat pipe.

33. A thermal management system according to claim 32 wherein of said thermal saddle is positioned atop an active, heat generating electronic component, so as to conductively receive operating heat, and includes a recessed slot defined in a top surface so as to receive a portion of said heat pipe.

34. A thermal management system according to claim 32 wherein said heat pipe includes at least one thermally conductive flag projecting outwardly from a portion thereof so as to provide a thermally conductive path to said heat pipe.

35. A thermal management system according to claim 34 wherein said flag comprises a heat pipe.

36. A thermal management system according to claim 33 wherein said cold plate comprises at least one channel defined in said first thermal interface surface.

37. A thermal management system according to claim 36 wherein a portion of said heat pipe is thermally engaged with said at least one channel.

38. A thermal management system according to claim 31 wherein said second thermal energy transfer assembly includes a rack-level cooling assembly comprising a plurality of modular loop thermosyphons that each include an evaporator and a condenser that are arranged in fluid communication with one another through a vapor conduit and a condensate conduit, wherein said second thermal interface surface is defined by a surface of said evaporator.